per week. None were JAG accredited for any procedures. 50% cited conflicting surgical commitments as the reason in failing to access training, with 29% and 21% stating absence of training lists and competition with medical trainees, respectively.
Conclusion: Our results reflect a poor use in JAG approved services and attendance to training lists. Questioning trainees nationally to ascertain whether similar issues exist elsewhere is needed, especially when considering EWTD and the debate as to whether surgeons should continue to deliver endoscopy services in the long term.

0658: QUALITY IMPROVEMENT PROJECT ON THE ACUTE SURGICAL HOUSE-OFFICER BLEEP

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Aim: Whilst the bleep is an essential method of communication,it can lead to interruptions in patient-care.A quality-improvement project was carried to monitor the appropriateness of bleeps and to investigate any solutions in reducing numbers.
Methods: For a 'control' week all the bleeps to the acute F1 were recorded. The time between the bleep and a phone was found, call length,the purpose of the call and the appropriateness of the bleep were recorded.As a result,implementations were made including:wi-fi phones for the doctors,discussions were held with nursing staff about the bleep and posters were placed on the wards.All bleeps were re-audited over 2 days.
Results: Following our implementations, the average daily number of bleeps fell 47.8%(22 bleeps c.f. 41.17) and only 8.4% of bleeps were deemed to be inappropriate compared to 36% prior. As a result of the wi-fi phones:the average time between the bleep and a phone found was reduced by 53.9%(148 c.f. 58.2 seconds)and the average call length was reduced by 23.2%.This led to a cumulative reduction on the F1's time spent answering bleeps from 152.05 to 53.36 minutes daily.
Conclusion: Our recommendations led to fewer interruptions from the bleep on ward-rounds. Doctors were able review patients efficiently and communication within the team improved, ultimately leading to enhanced patient-care.

0660: THE PARE PROJECT: OPTIMISING SURGICAL CARE THROUGH EMERGING TECHNOLOGY

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Aim: Excellent surgical care requires optimal management of medications. Replacement of paper prescriptions with electronic systems is recommended to reduce medication errors but few effective technologies exist to deliver this change. Near Field Communications (NFC) is an emerging technology allowing data transfer between mobile devices. The Prescription Administration Review with Electronics Project aimed to design an NFC based medication system for simulated teaching and clinical practice. We aimed to determine NFC use reduced medication errors while providing innovative training.
Methods: A system using electronic tablets and NFC tags to replace paper prescriptions was designed. It allowed medication, prescription and review tasks to be conducted by various healthcare disciplines. Student healthcare providers were invited to conduct simulated medication tasks. Errors produced using the PARE system were compared against use of a paper system.
Results: A significant difference was seen between median prescribing errors and mean administration errors committed using the PARE system and the paper system (4.5 versus 0.18, $p < 0.05$ and 2.3 versus 0.8, $p < 0.05$).
Conclusion: This emerging technology can be incorporated into training to produce an innovative educational tool. We anticipate developing this system for use in the clinical environment to deliver optimal surgical care.

0677: ABNORMAL ANATOMY: ARE OUR SURGICAL TRAINEES BEING TRAINED?

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Aim: For the aspiring surgeon, knowledge of human anatomy is essential. It underpins the specialty and, crucially, a detailed knowledge of its minutiae is essential for postgraduate examinations. This study sought to explore trainees' knowledge of anatomy upon commencing Core Surgical Training and further revisited the same cohort of trainees to assess attainment over the period of the first training year.
Methods: Qualitative feedback was collected from 95 pre-MRCS CST1 doctors from the Yorkshire & Humber and North Western Postgraduate Deaneries using free-text and multiple-choice questions. Trainees were encouraged to reflect on their knowledge of anatomy as new CST1 entrants. Information was also sought to establish provision of formal anatomy teaching during CST1 in preparation for examinations and subsequent higher surgical practice. Access to learning resources was also explored.
Results: Trainees reported a lack of formal anatomy teaching as part of their curriculum alongside little exposure to learning resources. Respondents also strongly highlighted an absence of examination tuition or coaching; as is commonplace amongst other specialty trainees.
Conclusion: This study exposes a gap in the education of junior surgeons. A worrying deficiency of prescribed tuition in anatomy and lack of Deanery-led preparation for postgraduate ecaminations begs the question: are surgical trainees really being trained?

0686: SIMULATION IN UNDERGRADUATE MEDICAL EDUCATION: DESIGNING A PROGRAMME TO IMPROVE MEDICAL STUDENTS' NON-TECHNICAL SKILLS

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Aim: It is essential for medical students to develop not only clinical but also non technical skills, however opportunities are limited in the undergraduate training and simulation is still underutilised[1]. We aimed to assess medical students' clinical and non-technical skills (NTS) according to their simulation exposure.
Methods: Final year medical students were either exposed to an intense simulation programme (group A) or received ad-hoc simulation training (group B). Scenarios were regarding common medical emergencies. We used the ANTS scoring system and a scoring system was designed to assess clinical skills. Mann–Whitney U test was used for statistical analysis.
Results: 65 medical students received simulation sessions. Both groups demonstrated good clinical skills (median score of 14/16). Group A demonstrated better non technical skills than group B. Specifically with regards to Task Management, Situational Awareness and Decision Making group A had acceptable performance (median score 3) whereas group B had poor (median score = 2), ($p < 0.01$). Both groups demonstrated acceptable Team Working skills (median score = 3), ($p > 0.05$).
Conclusion: Offering an intense simulation programme may significantly improve medical students' non technical skills and therefore consideration must be given in implementing a simulation curriculum into the final year of undergraduate training.

0704: PERCEPTION, CAREER CHOICE AND SELF-EFFICACY OF MEDICAL STUDENTS AND FOUNDATION DOCTORS IN UROLOGY: A NATIONAL SURVEY

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Aim: There exists a growing concern for the reduced clinical exposure to urology at the undergraduate level. Student views towards this speciality remain under-reported.
Methods: Participants were recruited via social media, an emerging platform for scientific discussion.
Results: 478 responses were collected. 41% reported a good clinical exposure as part of their training. 6% of students ranked urology as the surgical speciality they would most like to pursue a career in. 37% felt confident at catheterisation. 46% regarded urology as male-dominated, which significantly increased with year of study ($p < 0.01$).

Conclusion: Urology is the least popular surgical career to pursue. Increased exposure to urology for undergraduates and dedicated workshops are needed to address these challenges.

0707: CAN GOOGLE GLASS BE USED AS A TRAINING AND ASSEMENT TOOL?

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Aim: Limitations to working hours causes concerns for surgical training. Our pilot survey from 30 surgical trainees demonstrated problems regarding operating time and the quality of intra-operative feedback. We believed there was a requirement for a better training tool.
Methods: Google Glass for training and research was approved by the Trust Ethics Board and tailored consent forms were created. A small database of ENT and Orthopaedic surgical recordings were stored to a secure educational drive and a second set of recordings were done whilst a trainee operated and the trainer sat in the adjacent room, watching the procedure on a visual handpiece.
Results: In a second survey of the pilot group, 100% stated they would like access to the operative database, in particular of the lesser performed surgeries and 87% would welcome Google Glass as a surgical training tool. Feedback from trainers described increased confidence in leaving the trainee to operate.
Conclusion: There is clear role of Google Glass in surgery, it can be used to provide a database of teaching surgeries, a tool for assessment and reflection and evidence for Annual Review of Competence and Interviews. The interactive element provides reassurance to both trainer and trainee.

0709: THE MERTHYR COACHING TOOL FOR LAPAROSCOPIC COLORECTAL SURGERY (LCS)

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Aim: LCS is being offered increasingly offered to patients within the UK. Although national training programmes are being developed in some areas, many surgeons continue to be trained thorough alternative mechanisms. We present a coaching tool developed within an established laparoscopic colorectal unit that has been used effectively to provide targeted training in LCS.
Methods: To support training in our unit a simple assessment tool was developed and used effectively to coach trainees since 2011. Factors used to in assessment include case selection, access/exposure, port positioning, small bowel stacking, retraction, identification/protection of vital structures, safe vascular pedicle dissection and bowel mobilisation, and team working behaviour. We present our initial experience from the use of this tool.
Results: This tool has been used initially in self-assessment by the two authors over 225 cases. Subsequently, it has been used with 8 trainees of varying levels of experience and 11 consultant colorectal surgeons over a total of 66 cases to assess the performance as well as provide targeted feedback.
Conclusion: The tool has been shown to be a useful adjunct to the teaching and development of LCS within our centre. Further validation and ongoing assessment is required to promote its continued uptake.

0717: MAINTENANCE IV FLUID PRESCRIBING REFLECTS POOR JUNIOR DOCTOR KNOWLEDGE OF IV FLUIDS AND NEW NICE GUIDELINES FOR IV FLUID PRESCRIBING: IMPROVING IV FLUID PRESCRIBING IS DIFFICULT

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Aim: NICE guidelines (Dec 2013) recommend maintenance fluids providing 25-30ml/kg/day water, 1mmol/kg/day Na/K/Cl, and 50-100g/day glucose; representing a marked change from the traditional “one salt two sweet” regimen.
We aimed to assess junior doctors' knowledge of these guidelines, audit adherence, and improve prescribing practices.
Methods: Questionnaire and three 1-week prospective audit cycles following two interventions (1st – junior doctor teaching, 2nd – teaching & IV fluid prescription tool).
Results: 45/55/73/73/55% knew NICE's recommendation for water/Na/K/Cl/glucose provision respectively.
18/18/9/45% knew electrolyte compositions of Hartmann's/0.9% saline/0.45% saline + 5% dextrose/5% dextrose respectively.
In total 43 patients received a total of 75 days of fluid. More than 50% of bags prescribed were Hartmann's. Fluid prescriptions showed a shift towards the recommended allowances, improving from 29.1 to 24.5ml/kg water; 3.6 to 2.6mmol/kg sodium; 0.15 to 0.3 mmol/kg potassium; 3.2 to 2.5 mmol/kg chloride and 2.9 to 18 g glucose.
Conclusion: Junior doctors have a poor awareness of both the NICE guidelines and electrolyte content of commonly prescribed fluids.
Over-reliance on Hartmann's solution as the maintenance fluid of choice results in over-prescription of sodium and chloride and under-prescription of potassium and glucose.
Prescribing practices can be improved, but multiple modalities and repetition of teaching are necessary to update prescribers to the latest guidelines.

0723: FACE AND CONTENT VALIDATION OF CADAVERIC SIMULATION IN COLONOSCOPIC TRAINING (PRELIMINARY RESULTS)

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Aim: To demonstrate face and content validity of cadaveric simulation as a tool for training in colonoscopy.
Methods: 5-point Likert-type scale questionnaire is used by candidates attending an endoscopic course involving one station of cadaveric simulation for training basic skills of colonoscopy to assess face and content validity.
Results: 10 trainees attended an endoscopy course at the Simulation Centre (ST-2-ST6, surgeons/gastroenterologists). For face validity, overall average score was 3.83. Tissue behaviour score was 3.81 with highest score (> 4) achieved in mucosal visualization, anatomical landmarks and reality of pathology. The lowest score was (3.4) regarding tissue pliability. Overall score for reality of manoeuvre was 3.9. Highest score was for tactile feedback (4.4) and torqueing (4) while the lowest score (3.5) were for scope navigation. Overall score for Content validity was 3.5. Highest score was achieved for overall comfort and realism. Usefulness for basic and advanced training was 3.4.
Conclusion: The preliminary results of cadaveric simulation show face and content validation is achievable. Advantages of cadaveric simulation include tissues and pathology realism and tactile feedback. Challenges may include the tissue pliability and reality of deformation. Future research will include larger number of candidates aiming at achieving higher study power and construct validation.

0729: SURGICAL PATHOLOGY OF THE GORDON MUSEUM

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Aim: The study of gross operative specimens is a valuable, yet under-utilised, methodology to learn about surgical disease. The Gordon Museum (London, UK) houses over 8,000 specimens, making it the largest pathology teaching collection in the country. The aim of this study is to demonstrate the value and relevance of studying gross pathological specimens, such as those in unique educational collections like at the Gordon Museum.
Methods: Six specimens were selected from the Gordon Museum based on their relevance to the museum's history and to the educational requirement of the modern surgical trainee (as judged by their inclusion in the Membership of the Royal College of Surgeons exam syllabus). High-resolution photographs were taken of each, and relevant case histories reviewed. Additionally, a literature review concerning the diagnosis, assessment and management of each pathology was performed.
Results: High-resolution photography of six gross pathological specimens from the Gordon Museum are presented alongside case histories and a